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BELL, BOYD & LLOYD, LLP
P.O. BOX 1135
CHICAGO, IL 60690

EXAMINER
AHMED, SALMAN

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,478	HEISS, HERBERT	
	Examiner	Art Unit	
	SALMAN AHMED	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11 and 13-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 6-11, 13 and 16-19* is/are rejected.

7)☒ Claim(s) *4, 5, 14 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7/14/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/14/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 3-11 and 13-19 are pending.

Claims 1, 3, 6-11, 13 and 16-19 are rejected.

Claims 4, 5, 14 and 15 are objected to.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 7, 10, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (US PAT 5978355) in view of Kuriki et al. (US PAT PUB 2002/0027879, hereinafter Kuriki).

In regards to claim 1, Yamaguchi teaches *a data conversion method comprising: converting data transfer based on data packets* (column 1 lines 32-40, FIG. 3 is a block diagram showing re-assembling/assembling function, the reception ATM cells (Cell) are sequentially received in first-in first-out manner in a re-assembling queue buffer 1 and then input to a re-assembling portion 2 with accommodating delay fluctuation amount of respective cells. Thus, the data is re-assembled (i.e. *converting data transfer based on data packets*) to be transmitted to the TDM transmission line as the TDM transmission data) *into data transfer which is synchronized in timeslots* (column 1 lines 32-40 and

FIG. 3, Thus, the data is re-assembled to be transmitted to the TDM transmission line as the TDM transmission data), *storing the data packets in a conversion buffer memory* (column 1 lines 32-40, FIG. 3 is a block diagram showing re-assembling/assembling function, the reception ATM cells (Cell) are sequentially received in first-in first-out manner in a re-assembling queue buffer 1 (*conversion buffer memory*) and then input to a re-assembling portion 2 (*conversion buffer memory*) with accommodating delay fluctuation amount of respective cells. Thus, the data is re-assembled to be transmitted to the TDM transmission line as the TDM transmission data).

In regards to claim 1, Yamaguchi do not explicitly teach *discarding a data packet at the end of a time interval Tx if a number of the data packets in a buffer memory does not falls below a threshold value t > 0 during the time interval Tx*.

In regards to claim 1, Kuriki in the same field of endeavor teaches discarding a data packet at the end of a time interval Tx (Figure 12, at the end of time interval T1-T4) if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 (paragraphs 0047-0050, 0107, 0120, when the information from the IPAM 34 is received, the IPSD 36 receives the upper limit (UL) of the buffer 32 from the ULST 61, and determines whether the overflow of the buffer 32 takes place as a result of the inputting of the incoming packets to the buffer 32, based on the IP number and the RP number. When the OFP 40 is initiated by the determination that the overflow of the buffer 32 takes place, the OFP 40 sends a discard request to the PDU 42, so that the PDU 42 discards the excessive packets among the previously retained packets in the buffer 32 in accordance with the content of the discard request received from the OFP

40. For example, in the present embodiment, the upper limit (UL) is set to 20 (i.e. *t>0*). The upper limit (UL) of the buffer 32 is set to 20 packets (equivalent to 400 ms). As shown in FIG. 12, at the time instant T5, it is assumed that eight packets are received at the packet input unit 30 at the same time, and the IP number is 8. Suppose that the number of the retained packets (the RP number) at the input of the buffer 32 is 26, which is above the upper level (UL) of the buffer 32, and the DP ratio is set to 1/2. The PIP 31 detects whether each of the received packets is valid or invalid. The IPAM 34 receives the RP number from the buffer 32 when receiving the information from the packet input unit 30. The IPSD 36 determines that the RP number is above the upper limit (UL) of the buffer 32. The IPSD 36 initiates the OFP 40. The OFP 40 requests the DPE 41 to extract the invalid packets from among the received packets in the packet input unit 30. The DPE 41 extracts the invalid packets from among the received packets in response to the request, and sends the discard request to the PDU 42. The PDU 42 discards the excessive packets of the read packets of the buffer 32 in accordance with the content of the discard request)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi's system/method by incorporating the steps of discarding a data packet at the end of a time interval Tx if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 during the time interval Tx and control device controlling the discarding of data packets as suggested by Kuriki. The motivation is that such method of controlling the buffer level by discarding packets enables a system to control flow rate of packets and congestions according to

desired QoS; thus enabling a reliable and efficient communication according to desired service level within the network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claim 10, Yamaguchi teaches *a data conversion system* (System of figure 1) *for converting data transfer based on data packets* (column 1 lines 32-40, FIG. 3 is a block diagram showing re-assembling/assembling function, the reception ATM cells (Cell) are sequentially received in first-in first-out manner in a re-assembling queue buffer 1 and then input to a re-assembling portion 2 with accommodating delay fluctuation amount of respective cells. Thus, the data is re-assembled (i.e. *converting data transfer based on data packets*) to be transmitted to the TDM transmission line as the TDM transmission data) *into data transfer which is synchronized in timeslots* (column 1 lines 32-40 and FIG. 3, Thus, the data is re-assembled to be transmitted to the TDM transmission line as the TDM transmission data), *comprising: a conversion device* (Figure 1, Re-assembling portion 2) *and a conversion buffer memory* (Figure 1, re-assembling queue buffer 1) *for storing data packets* (column 1 lines 32-40, FIG. 3 is a block diagram showing re-assembling/assembling function, the reception ATM cells (Cell) are sequentially received in first-in first-out manner in a re-assembling queue buffer 1 (conversion buffer memory) and then input to a re-assembling portion 2 (conversion buffer memory) with accommodating delay fluctuation amount of respective

cells. Thus, the data is re-assembled to be transmitted to the TDM transmission line as the TDM transmission data).

In regards to claim 10, Yamaguchi do not explicitly teach *discarding a data packet at the end of a time interval Tx if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 during the time interval Tx.*

In regards to claim 10, Kuriki in the same field of endeavor teaches discarding a data packet at the end of a time interval Tx (Figure 12, at the end of time interval T1-T4) if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 (paragraphs 0047-0050, 0107, 0120, when the information from the IPAM 34 is received, the IPSD 36 receives the upper limit (UL) of the buffer 32 from the ULST 61, and determines whether the overflow of the buffer 32 takes place as a result of the inputting of the incoming packets to the buffer 32, based on the IP number and the RP number. When the OFP 40 is initiated by the determination that the overflow of the buffer 32 takes place, the OFP 40 sends a discard request to the PDU 42, so that the PDU 42 discards the excessive packets among the previously retained packets in the buffer 32 in accordance with the content of the discard request received from the OFP 40. For example, in the present embodiment, the upper limit (UL) is set to 20 (i.e. *t>0*). The upper limit (UL) of the buffer 32 is set to 20 packets (equivalent to 400 ms). As shown in FIG. 12, at the time instant T5, it is assumed that eight packets are received at the packet input unit 30 at the same time, and the IP number is 8. Suppose that the number of the retained packets (the RP number) at the input of the buffer 32 is 26, which is above the upper level (UL) of the buffer 32, and the DP ratio is set to 1/2. The

PIP 31 detects whether each of the received packets is valid or invalid. The IPAM 34 receives the RP number from the buffer 32 when receiving the information from the packet input unit 30. The IPSD 36 determines that the RP number is above the upper limit (UL) of the buffer 32. The IPSD 36 initiates the OFP 40. The OFP 40 requests the DPE 41 to extract the invalid packets from among the received packets in the packet input unit 30. The DPE 41 extracts the invalid packets from among the received packets in response to the request, and sends the discard request to the PDU 42. The PDU 42 discards the excessive packets of the read packets of the buffer 32 in accordance with the content of the discard request)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi's system/method by incorporating the steps of discarding a data packet at the end of a time interval Tx if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 during the time interval Tx and control device controlling the discarding of data packets as suggested by Kuriki. The motivation is that such method of controlling the buffer level by discarding packets enables a system to control flow rate of packets and congestions according to desired QoS; thus enabling a reliable and efficient communication according to desired service level within the network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claim 11, Yamaguchi does not explicitly teach a control device controlling the discarding of data packets.

In regards to claim 11, Kuriki in the same field of endeavor teaches a *control device controlling the discarding of data packets* (Figure 2, an input packet state determining unit (IPSD) 36 is interpreted as control device, paragraph 0050-0053, Further, when the information from the IPAM 34 is received, the IPSD 36 receives the upper limit (UL) of the buffer 32 from the ULST 61, and determines whether the overflow of the buffer 32 takes place as a result of the inputting of the incoming packets to the buffer 32, based on the IP number and the RP number. Namely, it is determined whether a sum of the retained packets (the RP number) and the incoming packets (the IP number) is above the upper limit (UL) of the buffer 32. When the overflow does not take place, the IPSD 36 initiates an input buffer processing unit (IBP) 38. When the overflow takes place, the IPSD 36 initiates an overflow processing unit (OFP) 40. Further, when the OFP 40 is initiated by the IPSD 36, the OFP 40 sends a special discard request to the DPE 41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi's system/method by incorporating the steps of control device controlling the discarding of data packets as suggested by Kuriki. The motivation is that a control device controlling various elements and process' of a system including the functionality of discarding of packets, enable the system to maintain a centralized control of the whole system functionality; thus implementing a seamless inter-module communication including congestion control within the network. Known

work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claims 7 and 17, Yamaguchi teaches *system/method for transfer which is synchronized in timeslots is effected according to a timeslot multiplexing method* (column 1 lines 32-40, FIG. 3 is a block diagram showing re-assembling/assembling function, the reception ATM cells (Cell) are sequentially received in first-in first-out manner in a re-assembling queue buffer 1 and then input to a re-assembling portion 2 with accommodating delay fluctuation amount of respective cells. Thus, the data is re-assembled (i.e. *converting data transfer based on data packets*) to be transmitted to the TDM transmission line (i.e. *timeslot multiplexing method*) as the TDM transmission data).

3. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi and Kuriki as applied to claims 1 and 10 above and further in view of Huang et al. (US PAT PUB 2003/0198184, hereinafter Huang).

In regards to claims 3 and 13, Yamaguchi teaches all the limitations of claims 1 and 10.

Yamaguchi do not explicitly teach system/method for *at least one data packet is present in the conversion buffer memory* and *data packet is discarded if a threshold is reached in buffer memory during a time interval*.

In regards to claims 3 and 13, Kuriki in the same field of endeavor teaches *data packet is discarded if threshold is reached in buffer memory during a time interval* (Figure 12, at the end of time interval T1-T4, paragraphs 0047-0050, 0107 and 0120, when the information from the IPAM 34 is received, the IPSD 36 receives the upper limit (UL) of the buffer 32 from the ULST 61, and determines whether the overflow of the buffer 32 takes place as a result of the inputting of the incoming packets to the buffer 32, based on the IP number and the RP number. When the OFP 40 is initiated by the determination that the overflow of the buffer 32 takes place, the OFP 40 sends a discard request to the PDU 42, so that the PDU 42 discards the excessive packets among the previously retained packets in the buffer 32 in accordance with the content of the discard request received from the OFP 40. For example, in the present embodiment, the upper limit (UL) is set to 20. The upper limit (UL) of the buffer 32 is set to 20 packets (equivalent to 400 ms). As shown in FIG. 12, at the time instant T5, it is assumed that eight packets are received at the packet input unit 30 at the same time, and the IP number is 8. Suppose that the number of the retained packets (the RP number) at the input of the buffer 32 is 26, which is above the upper level (UL) of the buffer 32, and the DP ratio is set to 1/2. The PIP 31 detects whether each of the received packets is valid or invalid. The IPAM 34 receives the RP number from the buffer 32 when receiving the information from the packet input unit 30. The IPSD 36 determines that the RP number is above the upper limit (UL) of the buffer 32. The IPSD 36 initiates the OFP 40. The OFP 40 requests the DPE 41 to extract the invalid packets from among the received packets in the packet input unit 30. The DPE 41 extracts the invalid packets from

among the received packets in response to the request, and sends the discard request to the PDU 42. The PDU 42 discards the excessive packets of the read packets of the buffer 32 in accordance with the content of the discard request)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi's system/method by incorporating the steps of *data packet is discarded if threshold is reached in buffer memory during a time interval* as suggested by Kuriki. The motivation is that such method of controlling the buffer level by discarding packets enables a system to control flow rate of packets and congestions according to desired QoS; thus enabling a reliable and efficient communication according to desired service level within the network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Yamaguchi and Kuriki do not explicitly teach threshold being set to 1 (i.e. *a quantity of data packets t = 1*).

Huang in the same field of endeavor teaches *threshold being set to 1* (paragraph 0028, In the design of a specific algorithm, the values of the tuning parameters can be changed based on a set of buffer thresholds $BYTE_i$ (i=1 . . . M).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi and Kuriki's system/method by incorporating the steps of *threshold being set to 1* as suggested by Huang. The motivation is that buffer threshold can be set to any arbitrary value based on design choice, available

system resources, data rate, network Qos requirement etc., and a value of "1" is such arbitrary value that can used to set buffer threshold level if the design choice, available system resources, data rate, network Qos requirement etc. dictate such value; enabling a system designer to implement an efficient and reliable system. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

4. Claims 6, 8, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi and Kuriki as applied to claims 1 and 10 above and further in view of Kato et al. (US PAT PUB 2004/0048615, hereinafter Kato).

In regards to claims 6 and 16, Yamaguchi teaches system/method for data transfer based on packets is effected according to AAL-1 standard (column 1 line 27, In the re-assembling portion 2, the ATM cells are converted into TDM data. process is performed according to a protocol based on a provision of AAL1. The converted TDM data is then transmitted through the TDM transmission line).

Yamaguchi and Kuriki do not explicitly teach AAL-2 type data.

Kato in the same field of endeavor teaches AAL-2 type data being transmitted over ATM (Figure 14 and section 0162, FIG. 14 is a diagram for explaining packet transfer according to the present invention when AAL Type 2 is used in the AAL switch network).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi and Kuriki's system/method by incorporating the steps of AAL-2 type data being transmitted over ATM as suggested by Kato. The motivation is that depending on service requirement and customer need, any arbitrary AAL type can be selected to implement communication over ATM network; AAL-2 is one such adoption layer type that can be chosen to utilize ATM communication if customer need and service quality call for such requirement. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claims 8 and 18, Yamaguchi teaches system/method for AAL-1 type data being transmitted over ATM.

Yamaguchi and Kuriki do not explicitly teach data being used for voice/audio via AAL-2.

Kato in the same field of endeavor teaches AAL Type 2 is an adaptation layer protocol for transferring packets, such as a packetized video or audio signal (paragraph 0140).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi and Kuriki's system/method by incorporating the steps of AAL-2 type data being used for audio being transmitted over ATM as suggested by Kato. The motivation is that, AAL-Type 2 protocol is intended and advantageous to provide efficient and reliable variable rate services that have timing

dependence between the transmitting and receiving ends, such as voices, which are subjected to variable rate encoding and are suitable for the purpose if needed by the network users to provide reliable voice service. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

5. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi and Kuriki as applied to claims 1 and 10 above and further in view of Wang et al. (US PAT 6735204, hereinafter Wang).

In regards to claims 9 and 19 Yamaguchi teaches AAL-1 type data being transmitted over ATM.

Yamaguchi and Kuriki do not explicitly teach data packet involves Common Part Sublayer packets of AAL-2 type traffic.

Wang in the same field of endeavor teaches in the case of AAL type-2 cells, when the user requires different QoS levels, the QoS levels are divided into classes that represent priorities. In such cases, however, CPS (common part sublayer) packets are input to the ATM cell multiplexing apparatus (column 1 lines 49-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yamaguchi and Kuriki's system/method by incorporating the steps of data packet involves Common Part Sublayer packets of AAL-2 as suggested by Wang. The motivation is that, AAL-Type 2 protocol is intended and

advantageous to provide efficient and reliable variable rate services that have timing dependence between the transmitting and receiving ends, such as voices, which are subjected to variable rate encoding and are suitable for the purpose if needed by the network users to provide reliable voice service. CPS is part of the ATM AAL specification sublayers used for ATM communication and it is advantageous to adapt to known standards for implementation of ATM based communication for following reason: Companies actively involved in adhering to standards more frequently reap short- and long-term cost-savings and competitive benefits than those that do not. Standardization can lead to lower transaction costs in the economy as a whole, as well as to savings for individual businesses. Standards have a positive effect on the buying power of companies. Standards can help businesses avoid dependence on a single supplier because the availability of standards opens up the market. The result is a broader choice for businesses and increased competition among suppliers. Companies also have increased confidence in the quality and reliability of suppliers who use standards. In addition, standards are used by businesses to exert market pressure on companies further down the value chain, i.e., their clients. Thus, businesses can use standards to broaden their potential markets.

Allowable Subject Matter

6. Claims 4, 5, 14 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

1. Applicant's arguments see pages 6-7 of the Remarks section, filed 10/27/2008, with respect to the rejections of the claims have been fully considered and are not persuasive.

Applicant argues (see page 6) that Kuriki does not teach *discarding a data packet at the end of a time interval Tx if a number of the data packets in a buffer memory does not falls below a threshold value t > 0 during the time interval Tx.*

However, Examiner respectfully disagrees with the Applicant's assetion. Kuriki does indeed teach the cited limitations. Specifically, Kuriki in the same field of endeavor teaches discarding a data packet at the end of a time interval Tx (Figure 12, at the end of time interval T1-T4) if a number of the data packets in the buffer memory does not falls below a threshold value t > 0 (paragraphs 0047-0050, 0107, 0120, when the information from the IPAM 34 is received, the IPSD 36 receives the upper limit (UL) of the buffer 32 from the ULST 61, and determines whether the overflow of the buffer 32 takes place as a result of the inputting of the incoming packets to the buffer 32, based on the IP number and the RP number. When the OFP 40 is initiated by the determination that the overflow of the buffer 32 takes place, the OFP 40 sends a discard request to the PDU 42, so that the PDU 42 discards the excessive packets among the previously retained packets in the buffer 32 in accordance with the content of the discard request received from the OFP 40. For example, in the present embodiment, the upper limit (UL) is set to 20 (i.e. *t>0*). The upper limit (UL) of the buffer 32 is set to 20 packets (equivalent to 400 ms). As shown in FIG. 12, at the time instant T5

(interpreted as time interval, which is at the end of time interval T1-T4), it is assumed that eight packets are received at the packet input unit 30 at the same time, and the IP number is 8. Suppose that the number of the retained packets (the RP number) at the input of the buffer 32 is 26, which is above the upper level (UL) of the buffer 32, and the DP ratio is set to 1/2. The PIP 31 detects whether each of the received packets is valid or invalid. The IPAM 34 receives the RP number from the buffer 32 when receiving the information from the packet input unit 30. The IPSD 36 determines that the RP number is above the upper limit (UL) of the buffer 32. The IPSD 36 initiates the OFP 40. The OFP 40 requests the DPE 41 to extract the invalid packets from among the received packets in the packet input unit 30. The DPE 41 extracts the invalid packets from among the received packets in response to the request, and sends the discard request to the PDU 42. The PDU 42 discards the excessive packets of the read packets of the buffer 32 in accordance with the content of the discard request)

As such claims 1, 3, 6-11 and 13, 16-19 stand rejected.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Examiner, Art Unit 2619

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419